

PUB-N0: EP001063794A2

DOCUMENT-IDENTIFIER: EP 1063794 A2

TITLE: Optical transmitter and wavelength multiplexing optical transmission apparatus using the same

PUBN-DATE: December 27, 2000

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APPL-N0: EP00113367

APPL-DATE: June 23, 2000

PRIORITY-DATA: JP17846799A (June 24, 1999)

INT-CL (IPC): H04B 10/155

EUR-CL (EPC): H04B010/155 ; H04B010/155 , H04B010/155 , H04B010/155

ABSTRACT:

CHG DATE=20010202 STATUS=0>&ORDF;&ORDF;&ORDF;&ORDF;In an optical transmitter, an oscillation wavelength of a semiconductor laser diode is controlled so as to stabilize the oscillation wavelength, while neither forward project light, nor a beam splitter is employed. The optical transmitter is arranged by employing: an optical waveguide path into which forward projection light of the semiconductor laser diode is entered; a wavelength filter containing an oscillation wavelength of the semiconductor laser diode in a wavelength band where a transmission wavelength band is transferred to a reflection wavelength band and vice versa, for causing a portion of backward projection light of the semiconductor laser diode to pass therethrough to output transmission light, and for reflecting the remaining light of the backward projection light to output reflection light; a first light receiving device for detecting a light level of the transmission light to output a transmission light level; a second light receiving device for detecting a light level of the reflection light to output a reflection light level; and a wavelength control circuit for controlling an oscillation wavelength of the semiconductor laser diode based upon both the transmission light level and the reflection light level.